



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,662	12/30/2003	Mohsen Shahinpoor		1661

27232 7590 05/30/2007
MOHSEN SHAHINPOOR
909 VIRGINIA, NE, SUITE 205
ALBERQUERQUE, NM 87108

EXAMINER

KOTINI, PAVITRA

ART UNIT	PAPER NUMBER
----------	--------------

3731

MAIL DATE	DELIVERY MODE
-----------	---------------

05/30/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/707,662	Applicant(s) SHAHINPOOR ET AL.	
	Examiner Pavitra Kotini	Art Unit 3731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 2-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 13-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is in response to Applicant's amendment after final received on 4/24/07. The Examiner had considered the Applicant's arguments with regard to prior art rejection of Schachar in view of Lau and has found them to be persuasive. Therefore, the rejection in the prior office action has been withdrawn. In other words, the Final Rejection sent on 4/17/07 has been vacated and another Final Rejection is provided.

With regard to the Applicant's concern that the prior Office Action was improperly made final, the Applicant would like to clarify the matter. The Final Rejection sent on 4/17/07 was properly made final due to the amendment of "a hole" and "with a peg" in claim 1. This amendment overcame the rejection of Dailey in view of Johnson, as presented in the Non-Final Rejection. A new ground of rejection (Schachar in view of Lau) was made to accommodate the newly added limitations of a hole and a peg. Therefore, the prior Office Action was made final, as necessitated by Applicant's amendment. As a result, the finality of the prior Office Action is proper.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 13-15, 17, 23, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagai (US-6428572) in view of Krishnan (US-6664335).

Nagai discloses an intraocular ring comprising:

An encircling band (fig. 1a, 1); wherein said band comprises a hole (fig.1a, 10) and a snap-on buckle (fig.1a, buckle 2 comprised of M and F) with a peg (fig.1a, 5).

Nagai also discloses said band to be made from biocompatible medical grade materials including shape memory polymers, heat shrinkable polymer materials such as polyurethane, silicone, and combinations thereof (col.4, lines 30-46). Nagai also discloses various customized buckles (figs. 1-23) with a central insertion peg (M) into a hole (F) in the band.

Nagai discloses the band to be made of polyurethane or polyethylene, but does not directly disclose the band to be heat-shrinkable.

It is in fact old and well known in the art that polyethylene or polyurethane can be heat shrinkable. See US patent #s 6350271, 4823791, and 2002/0049452.

Nevertheless, the Examiner provides another reference, Krishnan, which teaches medical devices with polyurethane, wherein the polyurethane is made heat shrinkable with thermoplastic polyurethane polymers. Therefore, it would have been obvious to a person of ordinary skill in the art that the intraocular band of Nagai could be modified with the thermoplastic polyurethane polymers as taught by Krishnan to ensure the polyurethane is heat shrinkable. Such a modification would provide the advantage of providing a tight seal or compressive force, without the use of adhesives (col.1, lines 40-45)

Regarding **claim 16**, it is old and well known to use polyolefin for an ocular implant. See for example US patent #s 5489300, 5645582, and 5405384.

Regarding **claims 18-22**, laser, RF energy, conventional Joule heating, and microwave are old and well established heating means in the area of optics. See for instance, US patent #s 5634921, 2002/0099363, 4381007, and 6342053.

Response to Arguments

Applicant's arguments, filed 4/24/07, with respect to the reference of Schachar have been fully considered and are persuasive. The rejection of 4/17/07 has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Nagai.

Nagai discloses the structure of the claimed apparatus. Nagai also discloses the material (polyurethane) that inherently confers it to have the property of being heat shrinkable, as taught by Krishnan. Nagai clearly discloses the intraocular ring to assert a compressive force. Although Nagai specifically does not disclose the band to fit around the sclera, such functional language is deemed not to impose any structural limitations on the apparatus claims. A recitation of the intended use of the claimed invention must result in a *structural* difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. Since the prior art structure of Nagai is capable of performing the intended use, then it meets the claim.

Furthermore, the combination of Nagai in view of Krishnan is under the premise that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. In this case, Nagai discloses an ocular implant that is made of polyurethane and Krishnan teaches that polyurethane can be modified with thermoplastic polymers that produce a heat shrinkable polyurethane. Therefore, the band disclosed by Nagai is also capable of being modified in the same manner and therefore made heat shrinkable. The combination of Nagai in view of Krishnan logically meets the limitations of a heat shrinkable ocular band.

Regardless of the terminology of the specific parts used by Nagai, the structural limitations are met by Nagai using the broadest, reasonable interpretation and scope of the claim language. Therefore, the terms a hole, a peg, and a buckle in combination with a band can comprise of plethora of possibilities and are not limited to the drawings and figures of the instant application.

Regarding claims 18-22, which refer to various conventional heating means, the examiner has provided a list of references, as merely exemplary, to assert that these means are indeed old and well known in the art. The Applicant states that these references are irrelevant because the heat is applied to the biological tissue and not the band. Such reasoning does not exclude the fact that such heating means are old and well known in the art. Claims 18-22 merely claim these separate heating means and not the *step* of applying the heating means to the band. Therefore, the provided references,

which teach various heating means used in the eye, satisfactorily meets the apparatus claims 18-22.

In response to applicant's arguments, the recitation for correcting retinal detachments of an eye has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone.

Conclusion

Applicant's amendment (received on 1/23/07) necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pavitra Kotini whose telephone number is 571-272-0624. The examiner can normally be reached on M-F 8:30am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anhtuan Nguyen can be reached on 571-272-4963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

P. Kotini
AU 3731

Tan-uyen ho
(JACKIE) TAN-UYEN HO
PRIMARY EXAMINER
5/24/07